

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
05 June 2025 (05.06.2025)



(10) International Publication Number
WO 2025/117882 A1

(51) International Patent Classification:

H10K 39/12 (2023.01) *H10K 30/40* (2023.01)
H10K 39/18 (2023.01) *H10F 19/90* (2025.01)
H10K 39/00 (2023.01)

(21) International Application Number:

PCT/US2024/057954

(22) International Filing Date:

29 November 2024 (29.11.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/603,987 29 November 2023 (29.11.2023) US

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(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG,
KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY,
MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA,
NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO,
RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS,
ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, CV,
GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST,
SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ,
RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ,
DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT,
LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE,
SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) Title: PROTECTIVE BARRIER LAYERS FOR PHOTOVOLTAIC MODULES

(57) Abstract: A photovoltaic module includes a plurality of sub-cells that are connected by interconnects formed by a plurality of scribes or to direct current to flow from one sub-cell to an adjacent sub-cell and a scribe, a P4-scribe to electrically isolate one series of sub-cells from an adjacent series of sub-cells. One or more of the scribes may include a scribe barrier layer that prevents degradation of the scribe, reduce oxygen and water exposure of the scribe sides and prevent corrosion due to chemical reactions. A P2-scribe is susceptible to degradation due to chemical reactions between different layers of the module that are in contact as a result of the geometry of the P2-scribe. The P3 and P4-scribes is susceptible to ingress and egress of water vapor or oxygen and egress of the A or X-site species of the perovskite.

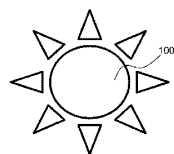
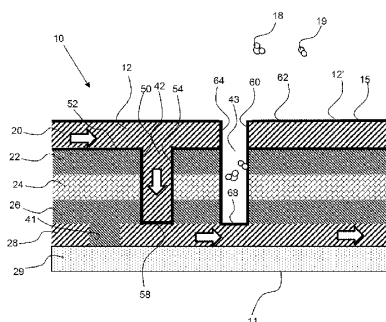


FIG. 2

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